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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,224	10/08/2003	Motokazu Kikuchi	06920/100J055-US1	8102
7278	7590	04/03/2006	EXAMINER	
DARBY & DARBY P.C.			WEIER, ANTHONY J	
P. O. BOX 5257			ART UNIT	
NEW YORK, NY 10150-5257			PAPER NUMBER	

1761

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/682,224

Applicant(s)

KIKUCHI ET AL.

Examiner

Anthony Weier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9 and 18 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/806,804.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2-49556 taken together with Hester et al or SU 274085.

JP 2-49556 (e.g. translation, page 3) discloses a continuous process wherein soybeans are ground into a slurry and heated to such temperature as to inherently induce denaturing wherein during said heating step, the slurry is deaerated (which removes air bubbles from same) and wherein said heating comprises a first and second heating step wherein the second heating step occurs after deaeration. In addition, JP 2-49556 (e.g. 80 C) discloses heating in the range as claimed during the deaeration.

JP 2-49556 further discloses flowing said soybean slurry through connected pipes, curved and straight. JP 2-49556 is silent regarding the use of connected alternating large and small pipes and the ratio of respective diameters for each. However, this concept is known in the art for providing turbulence to the material carried as taught, for example, by Hester et al (see col. 24, lines 41-50). In addition, SU 274085 teaches alternating small and large pipes to aid in providing intensive mixing of the contents therein (see Abstract). It would have been obvious to one having ordinary

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skill in the art at the time of the invention to have employed same as a way to provide a more uniform product through inherent mixing by said turbulence. As for the ratio of diameters, determination would have been well within the purview of one skilled in the art, and it would have been further obvious to have arrived at same through routine experimental optimization.

The instant claims call for said soybean slurry to be depressurized such that the temperature of the soybean slurry decreases by at least 3 C or more. Although JP 2-49556 is silent concerning the amount of temperature drop during the deaeration step, it is considered inherent that some temperature drop would occur due to pressure reduction. As for the amount of temperature drop, same is considered a result effective variable and well within the purview of a skilled artisan at the time of the invention. Absent a showing of unexpected results, it would have been obvious to one having ordinary skill in the art at the time of the invention to have attained same as a matter of preference.

3. Claims 1-6, 9, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuura taken together with Hester et al or SU 274085.

Matsuura (Examples) discloses a continuous process wherein soybeans are ground into a slurry and heated to such temperature as to inherently induce denaturing wherein during said heating step, the slurry is deaerated (which removes air bubbles from same) and wherein said heating comprises a first and second heating step wherein the second heating step occurs after deaeration. In addition, JP 01117755 (e.g. 90 C), Matsuura (e.g. 80 C), and JP 2-49556 (e.g. 80 C) disclose heating in the range as

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claimed during the deaeration. Matsuura further discloses injection of steam directly into the soybean slurry as called for in claim 9 (e.g. Example 2).

Matsuura is silent regarding the use of connected alternating large and small pipes wherein the larger pipe is arranged in a straight line and the smaller pipe is bent in a turning configuration and the diameters of each having a particular respective ratio. The concept of using large and small pipes is known in the art for providing turbulence to the material carried as taught, for example, by Hester et al (see col. 24, lines 41-50). In addition, SU 274085 teaches alternating small and large pipes to aid in providing intensive mixing of the contents therein (see Abstract). It would have been obvious to one having ordinary skill in the art at the time of the invention to have employed same as a way to provide a more uniform product through inherent mixing by said turbulence. As for the particular arrangement of the pipes being straight or bent, it is not seen where same would provide a patentable distinction with regard to the method. It would have been further obvious to have arrived at same as a matter of preference depending on, for example, the space constraints for the apparatus employed. As for the ratio of diameters, determination would have been well within the purview of one skilled in the art, and it would have been further obvious to have arrived at same through routine experimental optimization.

The instant claims call for said soybean slurry to be depressurized such that the temperature of the soybean slurry decreases by at least 3 C or more. Although Matsuura is silent concerning the amount of temperature drop during the deaeration step, it is considered inherent that some temperature drop would occur due to pressure

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reduction. As for the amount of temperature drop, same is considered a result effective variable and well within the purview of a skilled artisan at the time of the invention.

Absent a showing of unexpected results, it would have been obvious to one having ordinary skill in the art at the time of the invention to have attained same as a matter of preference.

Allowable Subject Matter

4. Claims 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

The prior art of record and, particularly, JP 02-49556 and Matsuura, do not disclose nor teach the particular invention of claims 16 and 17 as specifically claimed in conjunction with their independent claims. In particular, it would not have been obvious to one having ordinary skill in the art at the time of the invention to have provided the particular method as set forth in claim 1 wherein same further includes blowing steam into the soybean slurry from a steam outlet provided at the distal end of a steam pipe protruding into the inside of the small diameter pipe bent in a turning configuration as same for the preferred reasons as set forth in the the specification on page 15, line 15 – page 16, line 26 and as referred to in Applicants Remarks filed 2/28/06 (see page 5).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

5. Applicant's arguments filed 2/28/06 have been fully considered but they are not persuasive. Applicant's arguments have been addressed in view of the rejections above and in the Response to Arguments section of the Final Office Action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Weier whose telephone number is 571-272-1409. The examiner can normally be reached on Monday-Thursday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

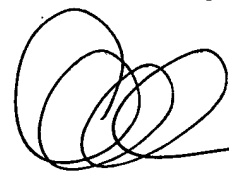
For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Weier
March 30, 2006

Anthony Weier
Primary Examiner
Art Unit 1761



3/30/06